

Abstract

The invention relates to a fuel injector (1) for a common rail injection system for injecting fuel into a combustion chamber (43) of an internal combustion engine. The fuel injector (1) includes an injector body (2) and a nozzle body (3). An injection valve member (21) embodied in multiple parts is received in the nozzle body (3). A hydraulic booster assembly (9) is connected downstream of a piezoelectric actuator (6). Control chambers (19, 20) are associated with the multi-part injection valve member (21) for actuating it. The hydraulic booster assembly (9) actuated by the piezoelectric actuator (6) has booster chambers (13, 17), which are each directly connected hydraulically with control chambers (19, 20) that actuate the needle parts (22, 23) of the injection valve member (21).